FHWA REGION NO	STATE	FED. AID PROJ. NO	SHEET NO.	TOTAL SHEETS
3	MD.	SEE TITLE SHEET		

Intersection Operation

This intersection is to initially operate in a NEMA six phase, semi-traffic-actuated mode. There will be exclusive/permissive left turns for both the north and southbound movements of MD 355. The through movements for MD 355 will operate concurrently. The Travis Avenue/Professional Drive (Detour) movements will operate concurrently.

An eight phase, full-traffic-actuated, solid state digital controller with five two-channel time delay output loop detector amplifiers housed in a base mounted cabinet are to be installed at this location.

Construction Details

A. Install base mounted cabinet/controller with all necessary equipment for an underground B-16 type electrical service (Note: two 4 in., 90-degree (Schedule 40) PVC bends, one 3 in., 90-degree (Schedule 40) PVC bend, and one 2 in., 90-degree (Schedule 80) PVC bend).

B. Install 12 in. x 30 ft. steel strain pole with 20 ft. luminaire arm, and 250 watt HPS luminaire (Note: one 2 in., 90-degree (Schedule 40) PVC bend). [Use four 1-3/4 in. x 90 in. anchor bolts.]

C. Install wood pole with back guys.

D. Install wood pole with back guys, 4 in. PVC riser, and weatherhead.

E. Install handhole.

F. Install 1 in. galvanized steel conduit for loop detector sleeve.

G. Install 2 in. polyvinyl chloride (Schedule 40) electrical conduit – trenched.

H. Install wood pole with back guys, 2 in. PVC riser, and weatherhead.

J. Install 4 in. polyvinyl chloride (Schedule 40) electrical conduit – trenched.

K. Install 6 ft. x 30 ft. quadrupole type vehicle loop detector (2-4-2 turns).

L. Install 3/8 in. steel span wire and vehicle signal heads as shown.

M. Install 3/8 in. steel span wire, vehicle signal heads and sign as shown.

N. Proposed underground electrical services by PEPCO.

O. Install 24 in. preformed white pavement marking for stop line.

P. Remove existing signing.

Q. Install ground mounted sign as shown.

Equipment List "A"

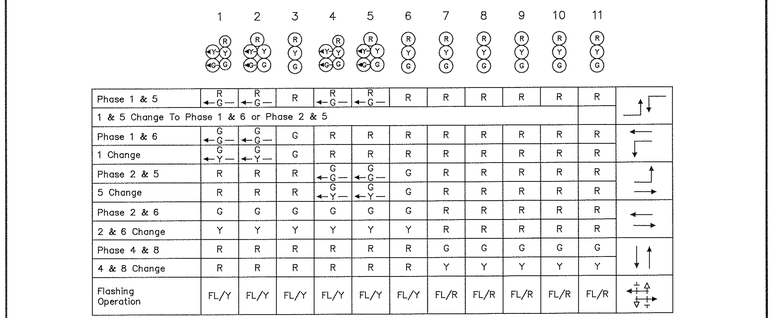
Equipment to be supplied by the SHA.

Quantity	Unit	Description
1	EA	Eight phase, full-traffic-actuated, solid state digital controller with LAU panel (to be used in a NEMA six phase semi-traffic-actuated mode) housed in a base mounted cabinet.
5	EA	Two-channel time delay output vehicle loop detector amplifier and harness.
2	EA	8 in./12 in., one-way, five section (8 in. R,Y,G/12 in. YA,GA) polycarbonate adjustable traffic signal head – span wire mount.
7	EA	12 in., one-way, three section (R,Y,G) polycarbonate adjustable traffic signal head – span wire mount.
2	EA	12 in., one-way, five section (R,Y,YA,G,GA) polycarbonate adjustable traffic signal head – span wire mount.
39	SF	Sheet Aluminum Signing. [To consist of two 36 in. x 42 in. R10-12 signs for span wire mounting, and two 36 in. x 36 in. W3-3 "NEW" signs for ground mounting.]

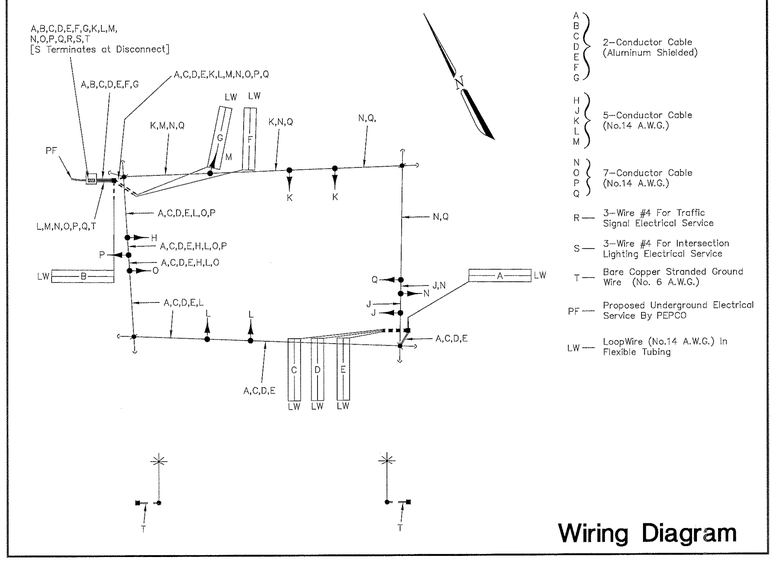
Equipment List "B"

Equipment to be furnished and/or installed by the Contractor.

Quantity	Unit	Description
5	CY	Test pit excavation.
150	LF	24 in. preformed white pavement marking for stop line.
2	EA	30 ft. steel strain pole.
4	EA	Handhole.
1025	LF	Sawcut for signal loop detector.
2600	LF	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
1925	LF	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
675	LF	5-conductor electrical cable (No. 14 A.W.G.).
900	LF	7-conductor electrical cable (No. 14 A.W.G.).
50	LF	Bare copper ground wire (No. 6 A.W.G.).
20	LF	3-wire electrical cable (No. 4 A.W.G.) for electrical services.
500	LF	3/8 in. steel span wire.
90	LF	1 in. galvanized steel conduit for loop detector sleeve.
30	LF	2 in. polyvinyl chloride (Schedule 40) electrical conduit – trenched.
30	LF	4 in. polyvinyl chloride (Schedule 40) electrical conduit – riser.
20	LF	4 in. polyvinyl chloride (Schedule 40) electrical conduit – trenched.
8	CY	Concrete foundation for signal equipment.
4	EA	Ground rod – 3/4 in. diameter x 10 ft. length.
1	EA	Control and distribution equipment (120/240V, one phase, three wire system).
2	EA	20 ft. Luminaire arm with 250 watt HPS luminaire.
11	EA	Install traffic signal head – span wire mount.
21	SF	Install sheet aluminum signing – overhead mount.
1	EA	Install base mounted cabinet.
LS	LS	Removal of existing signing.
18	SF	Install sheet aluminum signing – ground mount.
4	EA	40 ft. Class II wood pole with back guys.
1	EA	4 in. weatherhead.
1	EA	2 in. weatherhead.



Phase Chart



Wiring Diagram

Maintenance of Traffic
Phase 2, Stage 1

Sheet 22 of 52

A/E GROUP, INC.
CONSULTING ENGINEERS • PLANNERS
11409 CRONHILL DRIVE
OWINGS MILLS, MD. 21117
(410) 363-1908
A/E JOB NO: 94-264

REVISIONS	APPROVALS
	CHIEF, SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY

MDOT – STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION SIGNAL # 15035515.55

DRAWN BY: J. Dirndorfer
DES. BY: J. Dirndorfer
CHK. BY: 11/7/95
DATE: November 6, 1995
SCALE: N/A

MD 355 at Travis Avenue

COUNTY: MONTGOMERY

F.A.P. NO. AC-NH-G-5113(10) C
S.H.A. NO. M 611-501-371

TS/STD. NO. 3555-X1-GI

SHEET NO. ____ OF ____